IN THE CLAIMS:

Claims 1-38 (Canceled)

39. (Original) A camera signal processing apparatus comprising:

an interpolated pixel data generating means for interpolating pixel data in at least two directions based on a position of said pixel data and/or pixel data around said position, said pixel data being generated based on an imaging signal coming from a solid-state image sensor in which an imaging light enters through a color filter having a different spectral characteristic for each pixel, thereby separately generating interpolated pixel data in said-at least two directions;

a correlation detecting means for detecting a correlation value indicative of a degree of correlation in each of said at least two directions of said interpolated pixel data generated by said interpolated pixel data generating means;

an emphasis/deemphasis means for performing control whether said interpolated pixel data is to be generated by emphasizing the correlation depending on said correlation value detected by said correlation detecting means in each of said at least two directions;

a weighting means for weighting said interpolated pixel data in each of said at least two directions generated by said interpolated pixel data generating means with the correlation value controlled by said emphasis/deemphasis means in each of said at least two directions and adding together the weighted interpolated pixel data in all of said at least two directions to generate interpolated pixel data; and

an image generating means for generating an image based on said interpolated pixel data weighted by said weighting means.

40. (Original) The camera signal processing apparatus as set forth in claim 39, further comprising:

a control means for controlling said emphasis/deemphasis means;

wherein said control means outputs to said emphasis/deemphasis means a control signal for varying a slope of an input/output characteristic of said correlation value in each of said at least two directions, thereby controlling said emphasis/deemphasis means.

41. (Original) The camera signal processing apparatus as set forth in claim 40, further comprising:

a subtracting means for subtracting a predetermined value from said correlation value detected by said correlation detecting means in each of said at least two directions; and

an adding means for adding said predetermined value to the correlation value subtracted by said subtracting means in each of said at least two directions;

wherein said predetermined value is subtracted by said subtracting means from said correlation value detected by said correlation detecting means in each of said at least two directions and then a slope of an input/output characteristic of said correlation value in each of said at least two directions is varied by said emphasis/deemphasis means to add said predetermined value by said adding means.

42. (Original) The camera signal processing apparatus as set forth in claim 40, further comprising:

a limiting means for limiting a range of said correlation value in each of said at least two directions;

wherein said limiting means limits said range of said correlation value in each of said at least two directions of which .s lope of the input/output characteristic has been varied by said emphasis/deemphasis means.

43. (Original) The camera signal processing apparatus as set forth in claim 39, further comprising:

a normalizing means for generating a normalized value indicative of a relative value of said correlation value in each of said at least two directions by normalizing said relative value detected by said correlation detecting means in each of said at least two directions;

wherein said emphasis/deemphasis means varies a slope of said normalized value generated by said normalizing means.

44. (Original) A camera signal processing method comprising the steps of:

interpolating pixel data in at least two directions based on a position of said pixel data and/or pixel data around said position, said pixel data being generated based on an imaging signal coming from a solid-state image sensor in which an imaging light enters through a color filter having a different spectral characteristic for each pixel, thereby separately generating interpolated pixel data in said at least two directions;

detecting a correlation value indicative of a degree of correlation in each of said at least two directions of said interpolated pixel data;

performing control whether said correlation is to be emphasized depending on said correlation value in each of said at least two. directions;

weighting said interpolated pixel data- in each of said at least two directions with the correlation value in each of said at least two directions of which degree of correlation emphasis is controlled and adding together the weighted interpolated pixel data in all of said at least two directions to generate interpolated pixel data; and

generating an image based on said weighted interpolated pixel data.

45. (Original). The camera signal processing method as set forth in claim 44, wherein a control signal for varying a slope of an input/output characteristic of said correlation value in each of said at least two directions is generated and

control is performed by said control signal whether the correlation is to be emphasized depending on said correlation value in each of said at least two directions.

46. (Original) The camera signal processing method as set forth in claim 45, wherein:

a predetermined value is subtracted from said correlation value in each of said at least two directions; and

said predetermined value is added to the subtracted correlation value in. each of said at least two directions;

wherein;

said predetermined value is subtracted from said correlation value in each of said at least two directions and then a slope of an input/output characteristic of said correlation value in each of said at least two directions is varied to add said predetermined value by said adding means.

47. (Original) The camera signal processing method as set forth in claim 45, wherein said slope of said input/output characteristic is varied by limiting a range of said correlation value in each of said at least two directions.

48. (Original) The camera signal processing method as set forth in claim 44, wherein said correlation value in each of said at least two directions is normalized to generate a normalized value indicative of a relative value of said correlation value in each of said at least two directions and a slope of said normalized value is varied.

Claims 49-56 (Canceled)